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Two-Frequency Information Recording Using Stimulated Photon Echo in a Three-Level System

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Abstract

© 2014, Springer Science+Business Media New York. We study recording of information in a three-level system at external spatially inhomogeneous electric fields in the case of its coding in the first two-frequency object laser pulse. At two-frequency information recording, the temporal shape of a two-frequency object pulse is correlated with stimulated photonecho response. We observe that stimulated photon-echo responses are observed to be locked during the action of an external spatially inhomogeneous electric field between the first and second or after the third two-frequency pulse.

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Keywords

information coding, information locking effect, spatially inhomogeneous electric field, stimulated photon echo, three-level system, two-frequency information recording